Commissioner of Patents Serial No. 10/707,761 Response Date August 23, 2005 Reply to Office Action dated May 4, 2005 Page 2

## **AMENDMENTS TO THE CLAIMS**

- 1. (Currently Amended) An apparatus for producing a gypsum wallboard core, the apparatus comprising:
  - (a) a mixer;
  - (b) an extrusion die comprising a die inlet, a die exit, and a manifold disposed between the die inlet and the die exit, wherein the die inlet is in fluid communication with the mixer, the extrusion die has at least one secondary inlet[[s]] connected thereto for the introduction of the gypsum ingredients directly to the extrusion die, and the die exit is dimensioned to have a eross-section that is substantially identical to that of the gypsum wallboard coreratio of width to thickness of about 48:1 to about 216:1, so that a slurry passing through the extrusion die is extruded at a substantially similar thickness and width to that of the finished gypsum wallboard core;
  - (c) a substantially flat, movable surface disposed adjacent to the die exit; and(d) a dryer.
- 2. (Original) The apparatus of claim 1, wherein the mixer is a twin screw continuous mixer.
- 3. (Original) The apparatus of claim 1, wherein the mixer is a single screw mixer.
- 4. (Original) The apparatus of claim 1, wherein the mixer maintains positive displacement of materials in the mixer.
- 5. (Original) The apparatus of claim 1, wherein the mixer comprises one or more conduits or injection ports.
- 6. (Original) The apparatus of claim 1, wherein the die exit has a rectangular cross section.

Commissioner of Patents Serial No. 10/707,761 Response Date August 23, 2005 Reply to Office Action dated May 4, 2005 Page 3

- 7. (Canceled)
- 8. (Original) The apparatus of claim 6, wherein the rectangular cross section has a width of about 4 feet to about 4.5 feet.
- 9. (Currently Amended) The apparatus of claim 6, wherein the rectangular cross section has a heightthickness of about 1/4 inch to about 1 inch.
- 10. (Currently Amended) The apparatus of claim 6, wherein the rectangular cross section has a heightthickness of about 1/4 inch, about 5/16 inch, about 3/8 inch, about 1/2 inch, about 5/8 inch, about 3/4 inch or about 1 inch.
- 11. (Original) The apparatus of claim 1, wherein the dryer comprises a microwave heating section.
- 12. (Original) The apparatus of claim 1, wherein the dryer comprises a convection heating section.
- 13. (Original) The apparatus of claim 1, wherein the dryer comprises a microwave heating section and a convection heating section.
- 14. (Currently Amended) An apparatus for producing a gypsum wallboard core, the apparatus comprising:
  - (a) a mixer having a discharge end; and
  - (b) an extrusion die having a die inlet that is connected to the discharge end of the mixer, a die exit dimensioned to have a cross-section that is substantially <u>similaridentical</u> to the dimension of the finished gypsum wallboard core, and a manifold disposed between the die inlet and the die exit.

Commissioner of Patents Serial No. 10/707,761 Response Date August 23, 2005 Reply to Office Action dated May 4, 2005 Page 4

- 15. (Previously Presented) The apparatus of claim 14, wherein the die inlet of the extrusion die has a cross-sectional area that is substantially the same as that of the mixer discharge end.
- 16. (Previously Presented) The apparatus of claim 14, wherein the die exit has a rectangular cross section.
- 17. (Previously Presented) The apparatus of claim 16, wherein the rectangular cross section has a ratio of width to thickness of about 48:1 to about 216:1.
- 18. (Previously Presented) The apparatus of claim 16, wherein the rectangular cross section has a width of about 4 feet to about 4.5 feet.
- 19. (Currently Amended) The apparatus of claim 16, wherein the rectangular cross section has a heightthickness of about 1/4 inch to about 1 inch.